

~~In~~ claim 34, line 1, cancel "33" and insert -- 64 --

~~In~~ claim 38, line 1, cancel "53" and insert -- 54 --

Cancel claims 2, 5, 8, 11, 14, 16, 18, 23, 30, 33, 50, 51, and 52, without prejudice, and in lieu thereof insert the following claims:

55. A lined multi-branch fitting comprising:

a one-piece multi-branch hollow liner having a plurality of intersecting non-metallic hollow cylindrical branches in fluid communication with each other;

a plurality of individual confronting metal housing members, assembled over and snugly receiving said non-metallic branches, having confronting terminal ends disposed in confronting relation with each other; and

C1 a fillet weld bead integrally coupling said terminal ends of said confronting terminal ends of said metal housing members together in sealed relation with each other;

said metallic housing members each comprising a radially inner portion having a radially inner surface snugly receiving said liner and a radially outer portion having a radially outer surface; said radially inner portion of one of said housing members including an end face provided with a notch adjacent said liner; said inner portion of the other of said confronting metallic housing members including a confronting end face housing, a male projection

complementally formed to, and received by, said notch, and abutting said liner.

56. A lined multi-branch fitting comprising:

a one-piece multi-branch hollow liner having a plurality of intersecting non-metallic hollow cylindrical branches in fluid communication with each other;

a plurality of individual confronting metal housing members, assembled over and snugly receiving said non-metallic branches, having confronting terminal ends disposed in confronting relation with each other; and

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a fillet weld bead integrally coupling said terminal ends of said confronting terminal ends of said metal housing members together in sealed relation with each other;

said metallic housing members each including a radially inner portion having a radially inner surface snugly receiving said liner and a radially outer portion;

said radially inner portions including complementally formed nested male and female terminal end portions.

57. A lined multi-branch fitting comprising:

a one-piece multi-branch hollow liner having a plurality of intersecting non-metallic hollow cylindrical branches in fluid communication with each other;

a plurality of individual confronting metal housing members, assembled over and snugly receiving said non-metallic branches,

having confronting terminal ends disposed in confronting relation with each other; and

a fillet weld bead integrally coupling said terminal ends of said confronting terminal ends of said metal housing members together in sealed relation with each other;

one of said confronting terminal ends comprising a radially outer arcuate portion having a first end face and an integral, radially inner, liner receiving arcuate portion having a terminal male projection which projects beyond said first terminal end face of said radially outer arcuate portion;

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said male projection including a second terminal end face; another of said confronting terminal ends comprising a second radially outer arcuate portion having a third terminal end face and an integral, radially inner, liner receiving arcuate portion having a fourth terminal end face which is recessed relative to said third end face to form a notch for complementally receiving said male projection;

said second terminal end face being disposed in abutting relation with said fourth terminal end face.

58. A lined multi-branch fitting comprising:

a one-piece multi-branch hollow liner having a plurality of intersecting non-metallic hollow cylindrical branches in fluid communication with each other;

a plurality of individual confronting metal housing members, assembled over and snugly receiving said non-metallic branches, having confronting terminal ends disposed in confronting relation with each other; and

a fillet weld bead integrally coupling said terminal ends of said confronting terminal ends of said metal housing members together in sealed relation with each other;

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said liner including a hollow cylindrical base having opposite ends and a transversely disposed integral cylindrical neck projecting from said cylindrical base between said opposite ends;

said confronting metallic housing members including
confronting, elongate hollow cylindrical metal bases receiving said opposite ends of said liner, and

confronting substantially semi-cylindrical transversely extending, integral neck portions, integral with said cylindrical metal bases, receiving opposite sides of said cylindrical neck of said liner.

59. A lined multi-branch fitting comprising:

a one-piece multi-branch hollow liner having a plurality of intersecting non-metallic hollow cylindrical branches in fluid communication with each other;

a plurality of individual confronting metal housing members, assembled over and snugly receiving said non-metallic branches,

having confronting terminal ends disposed in confronting relation with each other; and

a fillet weld bead integrally coupling said terminal ends of said confronting terminal ends of said metal housing members together in sealed relation with each other;

said liner including a hollow cylindrical base having opposite ends and a transversely disposed integral cylindrical neck projecting from said cylindrical base between said opposite ends;

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said confronting metallic housing members including first and second axially aligned hollow metal cylinders snugly receiving said opposite ends of said liner and a transversely disposed third hollow cylindrical metal cylinder snugly receiving said neck of said liner.

60. A lined multi-branch fitting comprising:

a one-piece multi-branch hollow liner having a plurality of intersecting non-metallic hollow cylindrical branches in fluid communication with each other;

a plurality of individual confronting metal housing members, assembled over and snugly receiving said non-metallic branches, having confronting terminal ends disposed in confronting relation with each other; and

a fillet weld bead integrally coupling said terminal ends of said confronting terminal ends of said metal housing members together in sealed relation with each other;

said confronting terminal ends including radially inner and outer portions, said radially inner portion of said confronting end of one of said metal housing members including heat barrier means for inhibiting weld heat generated in a radially outer portion of said confronting end of the other of said metal housing members, as said fillet weld bead is being formed, from transferring to said liner.

61. A lined multi-branch fitting comprising:

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Cont.* a one-piece multi-branch hollow liner having a plurality of intersecting non-metallic hollow cylindrical branches in fluid communication with each other;

a plurality of individual confronting metal housing members, assembled over and snugly receiving said non-metallic branches, having confronting terminal ends disposed in confronting relation with each other; and

a fillet weld bead integrally coupling said terminal ends of said confronting terminal ends of said metal housing members together in sealed relation with each other;

insulating means, integrally formed on a radially inner portion of said confronting terminal end of one of said housing members, for insulating a portion of said liner adjacent a radially inner portion of said terminal end of another of said confronting housing members from weld bead applied to a radially outer portion of said terminal end of said other housing member.

62. In a multi-branch fitting having a metal housing lined with a one-piece non-metallic hollow multi-branch liner having a plurality of angularly related hollow cylindrical ends; said metal housing comprising:

a plurality of individual metal housing members which are disposed over said plurality of hollow ends in a confronting relation with each other;

each of said metal housing members

including a radially outer arcuate portion, and

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an integral radially inner arcuate portion having radially inner surfaces snugly receiving said liner; said radially inner arcuate portions of adjacent confronting metal housing members including complementally formed male and female parts disposed in nested relation with each other; and

a fillet weld metal bead disposed radially outwardly of said male and female parts coupling said confronting metal housing members together.

63. A lined multi-branch fitting comprising:

metal housing members assembled about a preformed one-piece hollow heat degradable liner having a plurality of hollow intersecting branches, each having an axis, with the full extent of the external portions of the joints between said housing members joined by weld metal; and

wherein said joints include radially inner portions comprising a slot adjacent said liner through the full extent of said joints on one of said housing members and a male strip projection on the other of said housing members throughout the full extent of said joints received by, and complementally formed to, said slot to provide a heat barrier to inhibit the transfer of any heat generated during the welding process from transferring from said external portion of said one housing member to said liner.

64. A lined multi-branch fitting comprising:

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a preformed one-piece liner of heat degradable material having a plurality of intersecting non-metallic, hollow cylindrical branches in fluid communication with each other;

a plurality of metal housing members assembled about said preformed liner including adjacent inner ends each having radially outer and radially inner end portions forming a joint there-between of a predetermined extent;

a fillet weld bead joining a radially outer portion of one of said housing members to the other of said housing members over said predetermined extent; and

insulating means on said radially inner end portion of one of said housing members for insulating a portion of said liner adjacent said radially inner portion of said one housing member from any heat in said radially outer portion of said one housing member.

65. A lined multi-branch fitting comprising:

a one-piece multi-branch hollow liner having a plurality of intersecting non-metallic hollow cylindrical branches in fluid communication with each other;

a plurality of individual confronting metal housing members, assembled over and snugly receiving said non-metallic branches, having confronting terminal ends disposed in confronting relation with each other; and

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a fillet weld bead integrally coupling said terminal ends of said confronting terminal ends of said metal housing members together in sealed relation with each other;

one of said confronting ends including

a radially outer end portion having a first radially outer end face, and

a radially inner end portion having a first radially inner end face relieved relative to said radially outer end face to define a radially inwardly opening, radially inner notch;

the other of said confronting ends including

a radially outer end portion having a second radially outer end face, confronting but spaced from said first outer end face to define a weld channel there-between for receiving said fillet weld, and

a radially inner end portion received by said notch having a second radially inner end face projecting outwardly beyond

said second radially outer face and disposed in abutting relation with said first radially inner end face.

66. A lined multi-branch fitting comprising:

a one-piece multi-branch hollow liner having a plurality of intersecting non-metallic hollow cylindrical branches in fluid communication with each other;

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a plurality of individual confronting metal housing members, assembled over and snugly receiving said non-metallic branches, having confronting terminal ends disposed in confronting relation with each other; and

a fillet weld bead integrally coupling said terminal ends of said confronting terminal ends of said metal housing members together, along the full extent of said confronting terminal ends in sealed relation with each other to preclude the passage of liquid between said confronting terminal ends.

67. The lined multi-branch fitting set forth in claim 66 wherein one of said confronting terminal ends includes an insulating projection on one of said metal housing members along the full extent of said confronting terminal ends and the other of said confronting terminal ends includes a complementally formed recess defining an insulation barrier along said full extent of said confronting terminal ends between said fillet weld bead and said liner.